

The Sedge Family (Cyperaceae) in Maryland: A Teaser

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The Cyperaceae, or Sedge family, is a large group of plants that is often overlooked or even avoided because they can be challenging to identify. Technical manuals and a familiarity with sedge-specific botanical terminology used to describe their morphological features are needed for identification. The Maryland Native Plant Society (MNPS) chose the Sedges as its Featured Family for 2026. I hope this article will encourage you to learn more about Maryland's sedges and their diversity, ecological importance, and enticing hidden beauty.

What ecological roles do sedges play?

Sedges are an important component of Maryland's ecosystems and native habitats and provide many critical ecological functions. Sedges serve as a food source for waterfowl, birds, and small mammals. And many sedges are host plants for a wide variety of butterflies, skippers, moths, wasps, and beetles. Sedges provide cover and nesting sites for wildlife, such as the federally listed Bog Turtle (*Glyptemys muhlenbergii*), who lays its eggs on tufts of the Tussock Sedge (*Carex stricta*). Another ecological function of sedges is their ability to prevent soil



Rhynchospora inundata (Narrowfruit Horned Beaksedge) is a highly state rare S1-ranked species, found in just a handful of sites in Dorchester and Wicomico Counties. It inhabits seasonally flooded wetlands known as Delmarva Bays. Photo by Ronald Wilson

erosion along streams, rivers and in wetlands. Their fibrous root system binds the soil and helps to anchor it in place.

Sedge Diversity in Maryland

In Maryland, sedges can be found growing in both wetland and upland

environments. The diversity of sedges in the state is largely the result of the diversity of habitat found within the state's five physiographic provinces: Appalachian Plateaus, Ridge and Valley, Blue Ridge, Piedmont, and the Atlantic Coastal Plain.

Maryland supports an impressive diversity of sedges, representing 32% of the overall native flora of Maryland, with 288 taxa (e.g., species, subspecies, varieties), of which 264 are native and 24 are non-native (Knapp & Naczi 2021). This makes the Cyperaceae the third largest family of vascular plants in the state: the Grass family (Poaceae) has 323 taxa and the Aster family (Asteraceae) has 310.

Sixteen genera of sedges occur in Maryland, including: *Bolboschoenus*, *Bulbostylis*, *Carex*, *Cladium*, *Cyperus*, *Dulichium*, *Eleocharis*, *Eriophorum*, *Fimbristylis*, *Fuirena*, *Rhynchospora*, *Schoenoplectiella*, *Schoenoplectus*, *Scirpus*, *Scleria*, and *Tricophorum*. *Carex* has the most species and is the largest genus of vascular plants in Maryland's flora (Frye & Lea 2001; Knapp & Naczi 2021). A few notable invasive sedge species include Japanese Sedge (*Carex kobomugi*), Smallflower Umbrella Sedge (*Cyperus difformis*), and Bog Bulrush (*Schoenoplectiella mucronata*).



Mostly a coastal species, *Bolboschoenus robustus* (Saltmarsh Bulrush) thrives in brackish and saltwater wetlands. Their rhizomes play a key role in anchoring soil and reducing erosion in intertidal zones. Photo by Cristina Niciporciukas.



The *Carex intumescens* (Bladder Sedge) inflorescence features the distinctive swollen perigynia that enclose the achenes, a hallmark of the genus *Carex*. Photo by Cristina Niciporciukas.



Clump-forming and a spreader, *Carex stricta* (Tussock Sedge) offers both structural and ecological benefits. Its thick clumps create safe havens for wildlife. Beneath the surface, its robust root network stabilizes soil and acts as a natural filter. Photo by Sean Sipple.

More than 82 species of Maryland's sedges are rare, according to the Maryland Natural Heritage Program (2021a, 2021b). Two examples include Narrowfruit Horned Beaksedge (*Rhynchospora inundata*), known from only a few locations in Dorchester and Wicomico Counties, where it grows in seasonally flooded freshwater depression wetlands called Delmarva Bays; and Richardson's Sedge (*Carex richardsonii*), which is restricted to serpentine barrens in Baltimore and Cecil Counties.

Coming to Terms (with Sedge Terms)

The following characteristics help define members of the Sedge Family and are crucial to identification of species.

- Sedges are typically perennial (live for many years) or seldom annual (complete their life cycle in one year) herbaceous plants.
- Sedges are either caespitose (growing in dense tufts) or rhizomatous (spreading by rhizomes).
- Sedge stems are called culms. Culms are usually trigonous (three-angled) but are sometimes terete (round)—so, sedges have edges, except when they're round!
- Sedge leaves are basal (emerging from the plant base) and/or cauline (along the stems).
- Sedge flowers are assembled in spikes (unbranched, elongated inflorescence), or spikelets (smaller, or secondary spikes), and are usually subtended by foliaceous bracts (leaflike structures at the base of a flower). The spikes are

composed of spirally arranged, usually appressed or ascending scales, that enclose one to many perfect or unisexual flowers that are wind pollinated. The stigma (tip of the female reproductive organ that is receptive to pollen) is either 2 or 3-forked.

- *Carex* species are characterized by a specialized, sac-like structure known as the perigynium (plural = perigynia), which encloses the ovary during early development and later surrounds the mature achene.
- Sedge fruits (achenes), are usually trigonous (three angled) or flattened biconvex (convex on both sides).

Looking Ahead—2026 Year of the Sedges

The MNPS is planning field trips, workshops, and talks on the Cyperaceae in 2026, and additional articles about Maryland's amazing sedges and their ecological importance. Board member Jorge Bogantes Montero is already planning to run sessions on sedge identification for MNPS members. We hope you share our enthusiasm and will join us as we dive deeper into this important and challenging group of plants!

For a complete list of Maryland's sedges, scan the QR code:



REFERENCES

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Cyperus echinatus (Globe Flatsedge) is readily recognized by its tight, nearly spheric spikes. Photo by Cristina Niciporciukas.



Eleocharis obtusa (Blunt Spike-rush) is an annual sedge that has round culms that are soft and erect, with leaves reduced at its base giving the appearance of being leafless. Photo by William McAvoy.



Although its common name suggests otherwise, *Eriophorum virginicum*—Tawny Cottongrass—is actually a sedge, not a true grass. The many bristles on the achene are elongate and extend beyond the scales, creating a cotton-like appearance. Photo by William McAvoy.



The wetland species *Fuirena squarrosa* is called Hairy Umbrella-sedge because its flowers feature bristly perianth structures with tiny backwardfacing barbs, giving the plant a distinctly hairy or rough appearance. Photo by William McAvoy